

Application No. 10/817,342  
Reply to Office Action dated January 5, 2006  
Response filed February 28, 2006

Docket No.: D0932-00457 [I-8882]

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

- 1 1. (Currently Amended): A method for forming a shiplap edge in a duct board, comprising  
2 the steps of:
  - 3 (a) molding a shiplap edge in a first duct board made of mineral fiber or mineral wool, the  
4 molded shiplap edge having a molded edge thickness; and
  - 5 (b) machining the molded shiplap edge with a cutter or grinder to a desired machined edge  
6 thickness that is less than the molded edge thickness.
- 1 2. (Original): The method of claim 1, wherein the molding step includes forming a region of  
2 increased density fibrous material in the shiplap edge.
- 1 3. (Original): The method of claim 1, wherein the molding step includes compressing an  
2 edge portion of the first duct board from a board thickness to the molded edge thickness, thereby  
3 to form the shiplap edge.
- 1 4. (Original): The method of claim 3, wherein a ratio of the molded edge thickness to the  
2 board thickness is about 1.25:2.
- 1 5. (Original): The method of claim 4, wherein a ratio of the machined edge thickness to the  
2 molded edge thickness is about 1:1.25.
- 1 6. (Original): The method of claim 1, further comprising:  
2 molding a shiplap edge in a second duct board made of mineral fiber or mineral wool  
3 using a same mold that is used to perform step (a), wherein:  
4 the first and second duct boards have different board thicknesses from each other,

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5 the machined edge thickness of the shiplap edge of the first duct board is about one half  
6 of the board thickness of the first duct board, and  
7 a molded edge thickness of the shiplap edge of the second duct board is about one half of  
8 the board thickness of the second duct board.

1 7. (Original): The method of claim 6, further comprising changing a height of the mold  
2 between molding the shiplap edge of the first duct board and molding the shiplap edge of the  
3 second duct board.

1 8. (Original): The method of claim 6, wherein the mold is attached to a portion of a curing  
2 oven that determines the thickness dimensions of the first and second duct boards, and through  
3 which the first and second duct boards pass, the method further comprising changing a height of  
4 the portion of the oven between molding the shiplap edge of the first duct board and molding the  
5 shiplap edge of the second duct board.

1 9. (Original): The method of claim 8, wherein the height changing step includes changing  
2 the height of the portion of the oven by a distance that is equal to a difference between the board  
3 thickness of the first duct board and the board thickness of the second duct board.

1 10. (Original): The method of claim 8, further comprising using a constant height second  
2 mold attached to a portion of the oven that does not change height, to form an additional shiplap  
3 edge in the first duct board opposite the first shiplap edge.

1 11. (Currently Amended): The method of claim 6, wherein ~~a~~ the cutter or grinder is attached  
2 to a fixture through which at least the first duct board passes.

1 12. (Original): The method of claim 11, further comprising  
2 changing a height of the fixture; and  
3 molding a shiplap edge in a third duct board having a third board thickness different from  
4 the thicknesses of the first and second duct boards, using the same mold that is used to perform  
5 step (a).

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1 13. (Original): The method of claim 1, wherein the machining step comprises grinding.

1 14. (Withdrawn): Apparatus for forming a shiplap edge in a duct board, comprising:  
2 at least one mold for molding a shiplap edge in a first duct board made of mineral fiber or  
3 mineral wool, so that the molded shiplap edge has a molded edge thickness; and  
4 a cutter or grinder for machining the molded shiplap edge to a desired machined edge  
5 thickness less than the molded edge thickness.

1 15. (Withdrawn): The apparatus of claim 14, wherein the mold is sized and shaped to  
2 compress an edge portion of the first duct board from a board thickness to the molded edge  
3 thickness, thereby to form the shiplap edge.

1 16. (Withdrawn): The apparatus of claim 14, wherein a height of the mold is adjustable  
2 relative to a bottom surface of the first duct board.

1 17. (Withdrawn): The apparatus of claim 16, further comprising a fixture through which the  
2 first duct board passes, at least a portion of the fixture having an adjustable height, the cutter or  
3 grinder being attached to the portion of the fixture.

1 18. (Withdrawn): The apparatus of claim 16, further comprising a curing oven that  
2 determines the thickness dimensions of the first and second duct boards, and through which the  
3 first duct board passes, at least a portion of the oven having an adjustable height, the mold being  
4 attached to the portion of the oven.

1 19. (Withdrawn): The apparatus of claim 18, wherein:  
2 the oven manufactures duct boards of at least two different board thicknesses, and  
3 the height of the portion of the oven is adjustable by at least a distance that is equal to a  
4 difference between two different board thicknesses of duct boards that are passed through the  
5 oven.

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1 20. (Withdrawn): The apparatus of claim 14, further comprising a second mold that does not  
2 change height, used to form an additional shiplap edge in the first duct board opposite the first  
3 shiplap edge.

1 21. (Withdrawn): Apparatus for forming a shiplap edge in a duct board, comprising:  
2 at least one mold for molding a shiplap edge in a first duct board made of mineral fiber or  
3 mineral wool, so that the molded shiplap edge has a molded edge thickness; and  
4 means for machining the molded shiplap edge to a desired machined edge thickness less  
5 than the molded edge thickness.

1 22. (Withdrawn): A duct board material, comprising:  
2 a board of mineral fiber or mineral wool, the board being formed by molding a shiplap  
3 edge in a first duct board made of mineral fiber or mineral wool, so that the molded shiplap edge  
4 has a molded edge thickness, and machining the molded shiplap edge to a desired machined edge  
5 thickness that is less than the molded edge thickness.

1 23. (Withdrawn): The duct board material of claim 22, wherein an amount of material  
2 machined from the board to achieve the desired machined edge thickness is substantially less  
3 than one half of a board thickness of the duct board.

1 24. (Withdrawn): The duct board material of claim 22, wherein a density of the material in  
2 the molded shiplap edge is substantially greater than a density of the material in the remainder of  
3 the first duct board.